In Claim 27, line 7, delete "into", and substitute therefor --with--.

In Claim 27, line 8, delete "the".

Remarks

Claims 1-27 are pending in this application, and stand rejected pursuant to the Examiner's Office Action dated 4/10/91. Applicants have amended the specification and claims in response thereto, and request the Examiner reconsider the rejection of these Claims 1-27. The following comments follow the order of the Examiner's comments, to facilitate issue resolution.

The Examiner has required correction of the Abstract, based on Applicants' use of the term "means". Applicants have amended the Abstract to eliminate such usage.

The Examiner next rejected Claims 1-27 under 35 U.S.C. 112, second paragraph, as being indefinite. As to Claim 1, the Examiner points out improper antecedent basis for "the selected items" and "the data". Applicants have amended Claim 1 in response thereto. The Examiner further states that "... associating ... into ..." is vague in Claim 1. Applicants have further amended Claim 1, in changing the word "into" to "with" to clarify the dynamic association. Specification support for this change is found at Specification page 12, lines 20-35. The association description in the Specification is further discussed at Page 27, lines 7-13.

Next, the Examiner rejected Claim 4 for improper antecedent basis for "said hierarchical relationship" and "said at least two interface objects". Applicants have amended Claim 4 to be dependent on Claim 3, and not Claim 2, where such elements have been previously defined.

The Examiner rejected Claim 5 for improper antecedent basis for "the objects", "said objects", and "the data". Applicants have amended Claim 5 to clarify that "the objects" and "said objects" are "interface objects", which have been previously used.

The Examiner rejected Claim 11 for improper antecedent basis for "said constructed command". Applicants have amended Claim 11 to eliminate the term "constructed".

The Examiner rejected Claim 12 for improper antecedent basis for "said executed command". Applicants have amended Claim 11 to eliminate the term "executed".

The Examiner rejected Claim 13 for improper antecedent basis for "the data". Applicants have corrected this problem by eliminating "the".

The Examiner rejected Claim 14 for improper antecedent basis for "said objects". Applicants have amended Claim 14 to clarify that these are "interface objects".

Next, the Examiner rejected Claim 15 in stating "said data" lacks proper antecedent basis. Applicants have eliminated "said" from this element.

Claim 18 was rejected by the Examiner stating "the interface data database", "said altered interface", and "said same session" lacked proper antecedent basis. Applicants have amended Claim 18 to correct these deficiencies. Applicants are claiming means for altering the "object database", and have corrected the first usage of "altered interface" and "same session".

The Examiner rejected Claim 19 as having improper antecedent basis for "said interface object database". Applicants have deleted the term "interface" from this element to clarify that the object database is being altered.

Claim 20 was rejected by the Examiner for having improper antecedent basis for "said hierarchy of interface objects" and "said hierarchy". Applicants have amended Claim 20 to correct these antecedent basis problems.

The Examiner rejected Claims 22 and 23 in stating that "said interface data objects" lacks antecedent basis. Applicants have amended Claims 22 and 23 to delete the term "data", and thus clarify that "interface objects" are being claimed.

Next, Claim 24 was amended by Applicants in response to the Examiners suggestion to correct a typing error.

Claims 26 and 27 were rejected by the Examiner for reasons similar to Claim 1, and Applicants have corrected these Claims 26 and 27 in a manner consistent with that of Claim 1.

Based on the above comments and amendments to the claims, Applicants have overcome all basis for the Examiners 35 U.S.C. 112, second paragraph rejections, and request the Examiner withdraw such rejection.

Next, the Examiner rejected Claim 27 under 35 U.S.C. 101, stating that the claim was directed to non-statutory subject matter. The Examiner goes on to state that Claim 27 recites a computer program, which Applicants agree with, and that this is a bare set of instructions which fails to recite subject matter that falls within any statutory category, which Applicants disagree with. The Examiner gives no rule or statutory basis in stating that a computer program or bare set of instructions is non-statutory. Applicants traverse this rejection with specific statutory language and judicial holdings contrary to the Examiner's characterization and rejection of Applicants' claimed invention.

Claim 27 claims a computer program having 'means for presenting items for selection by a user of a data processing

system', and comprising 'means for representing' and 'means for dynamically associating'. Means-for elements are specifically allowable types of claims, per 35 U.S.C. 112, sixth paragraph, without the recital of structure, material, or acts and such claim shall be construed to cover the corresponding structure, material, or acts in support thereof.
Therefore, as Applicants' claims cover corresponding structure, material or acts, it is erroneous for the Examiner to state that these claims constitute non-statutory subject matter as being a mere idea or abstract intellectual concept(see Paper # 4, paragraph 7). As the basis for the Examiners rejection is contrary to the statutory language of 35 U.S.C. 112, this Claim 27 has been erroneously rejected by the Examiner.

Further, the CCPA has held that computer processes are statutory unless they fall within a judicially determined exception, In re Pardo, 684 F.2d at 916, 214 USPQ at 677 (CCPA 1982). As was succinctly stated in In re Gelnovatch, 595 F.2d 32, 201 USPQ 136 (CCPA 1979), "confusion may be avoided if it is realized that what is at issue is not the 'program', i.e. the software, but the process steps which the software directs the computer to perform". The Examiner has failed to show any judicially determined exception to computer programs, and has wrongfully rejected this claim in a manner contrary to judicial holdings.

The Examiner next rejected Claims 1-27 under 35 U.S.C. 103 as being unpatentable over Beck et al. The Examiner states that Beck teaches "means for representing a plurality of ... objects", "means for dynamically associating different ones", and "plurality of logical frame presentations based upon the data within each of said different ones" at Fig. 5, items 27, 40, 41, and 53. Examiner then states that although

Beck doesn't explicitly teach "interface objects", that it
would be obvious because the graphical representations of
objects taught by Beck could be construed as interface ob-
jects. Applicants show that Claim 1 would not be obvious in
view of Beck as follows.

Amended Claim 1 has the limitation of 'means for dynami-
cally associating different ones of said interface objects
with a plurality of logical frame presentations based upon
data within ... said interface objects'. Examiner has stated
that the graphical representations 40 and 41 of Beck Figure 5
are graphical representations of objects (Paper # 4, paragraph
10, top of page 8). Indeed, the Beck graphical representa-
tions are mere passive representations, and have no means for
'dynamically associating' as claimed by Applicants. As
further illustrated and discussed in Beck, Col. 10, lines
22-25 and 45-50, a user issues commands to a debugger, which
updates these graphical representations (see also Beck Col 4,
lines 26-30). No dynamic association between interface
objects and logical frame presentations based upon data within
the interface object is taught or suggested by Beck. Thus,
Claim 1 was improperly rejected.

The Examiner rejected Claim 2 in stating that Beck
teaches the feature of an interface object representing at
least one attribute of a system resource, and cites Beck Col.
1, lines 62-65 and Col. 3, lines 54-55. Unfortunately, Beck
states that 'each component of the system can be modeled with
an object' (Col. 1, lines 62-65), and that these objects have
code to perform operations (Col. 3, lines 54-55). The Examin-
er has failed to show where Beck discusses or teaches repre-
senting attributes of system resources as claimed by Appli-
cants. Beck's objects merely represent the resources them-
selves, and not particular attributes of system resources.

Applicants have added an additional level of detail to the resources, which allows for the dynamic associations. As is discussed by Beck at Col. 1, lines 62-65, the objects model system components such that the components can be simulated by the methods corresponding to the objects. No discussion or means are provided for particular attributes of a resource. Therefore, the limitations of Claim 2 are not taught or suggested by Beck. Further, as Claim 2 has all the limitations of Claim 1, and Claim 1 has been shown to be patentable in view of Beck, Claim 2 is similarly patentable.

Next, the Examiner rejected Claim 3 in stating that Beck teaches the claimed feature of representation of hierarchical relationships. Again, Applicants claim representing hierarchical relationships 'based upon data within each of said ... interface objects'. Beck's hierarchical representation of Figure 6 cannot be construed to be based upon data within interface objects, as it has been shown and stated by the Examiner that Beck's interface objects are mere graphical representations (Beck Col. 4, lines 26-30, and Examiner Paper # 4, paragraph 10). These are the output of Beck's debugger, whereas Applicant's interface objects define the workings of the interface and control software (i.e. they are the 'inputs' to the system, and not outputs as are Beck's graphical representations), as discussed in Applicants' specification, page 7, lines 27-31. Additionally, Claim 3 depends upon and thus has all the limitations of Claim 1, which has been shown to be patentable. Therefore, Claim 3 has been erroneously rejected as is patentable in view of Beck.

The Examiner rejected Claim 4, in stating that Beck teaches the limitation of requiring a dynamic association according to hierarchical relationships. Applicants have amended Claim 4 to depend upon Claim 3, and Claim 3 was shown

above to be patentable. Therefore, for the same reasons,
Claim 4 is patentable in view of Beck, as Beck has no way of
representing dynamic association within interface objects.

Next, the Examiner rejected Claim 5 in stating that Beck
teaches the feature of 'means for managing of a screen presen-
tation' at Beck, Col. 8, lines 10-13. Applicants have studied
this passage in Beck, and nowhere is discussed the claimed
limitation 'means for managing of a screen presentation'. The
passage discusses how a program simultaneously performs
multiple processes as monitoring a keyboard, mouse, managing a
clock, running multiple programs, etc. There is no discussion
on outputting data to a screen, much less how such method is
performed. Claim 5 also has the limitation of managing screen
presentation and a user interaction based upon data within ...
interface objects. Beck's graphical representations are mere
passive, output elements (Beck, Col. 4, lines 26-30). There-
fore, Claim 5 would not have been obvious in view of Beck, as
there is no teaching or suggestion to modify the reference to
achieve Applicants' claimed invention.

Claim 6 was rejected by the Examiner as being obvious in
view of Beck, the Examiner stating that Beck teaches the
feature of utilizing a current value of a system resource
attribute at Beck, Col. 2, lines 6-9. Applicants do not see
how Beck's teachings of 'an object may also provide informa-
tion to the user through its image on the screen by means of
data displays or graphical changes to its image' in any way
teach or suggest Applicants' claimed limitation of 'means for
utilizing a current value' of a system resource attribute for
presentation to a user. As previously discussed, Beck's
objects represent system resources, and do not represent
underlying attributes of the resource. Thus, Beck could not
be utilizing a current value of an attribute. Beck merely

changes the image being displayed to provide information to a user. There is no teaching or suggestion that Beck's graphical representations have attributes associated therewith. Additionally, Claim 6 has all the limitations of Claim 2, which has been shown to be patentable. As such, Claim 6 is also patentable in view of Beck, and has been improperly rejected.

The Examiner rejected Claim 7 per the teachings of Beck Col. 14, line 63 to Col. 15, line 26. This passage discusses objects having instance methods, i.e. multiple invocations of an objects' methods are possible. This is not in any way germane to what Applicants are claiming, which is 'instance... of ... said system resources'. Methods contained within objects are not the equivalent of system resources, and so method instances are not equivalent to system resource instances. The distinction is that instances of system resources are represented by objects (See Specification, page 7, lines 1-2), whereas Beck's has instances of the methods contained within an object. For example, a printer might be a particular instance of a system resource represented by an object, as claimed by Applicants. Beck's method instances would be a particular copy of an object's internal mechanism. As the instances are distinct and not related, Beck does not teach or suggest the limitations of Applicants Claim 7. Thus, Claim 7 is patentable in view of Beck. Claim 7 further contains all the limitations of Claim 2, which has been earlier shown to be patentable, as thus Claim 7 is likewise patentable.

The Examiner rejected Claim 8 as being obvious in view of Beck. The analysis for Claim 8 similarly follows from that of Claim 7 above, as Claim 8 is dependent upon Claim 7. Thus, Claim 8 is patentable in view of Beck.

The Examiner rejected Claim 9 in view of Beck teachings at col. 14, line 63 to col. 15, line 26. Applicants claim 'means for utilizing a current value of ... attribute of ... system resource for a validation of a user response'. Beck does not teach system resources having attributes, or current values of attributes being used for validation of user responses. Therefore, the limitations claimed by Applicants are patentable in view of Beck. Further, Claim 9 includes all the limitations of Claim 2, which has been shown to be patentable. Therefore, Claim 9 was improperly rejected, and should be allowed.

The Examiner rejected Claim 10 as being obvious in view of Beck, particularly the teachings at Col. 8, lines 1-5. This passage of Beck instructs how the Beck debugger is invoked by an operator, i.e. how the operator types in a command to begin operation of the debugger. This is not what is being claimed by Applicants. Applicants are claiming a way of constructing a command based upon an input value and an option contained within an interface object. When the Beck command is input, there are no graphical representations on the screen, as the program has yet to be invoked. Further, the graphical representations of Beck have no options contained therein, whereas Applicants are claiming options contained within an interface object. Thus, the command line invocation of Beck in no way teaches or suggests the limitations being claimed by Applicants, and Claim 10 is allowable in view of Beck.

The Examiner rejected Claim 11 by stating that Beck teaches means for executing command. Applicants maintain that Claim 11 is allowable in view of Beck for the reasons stated above in regards to Claim 10.

Next, the Examiner rejected Claim 12 in stating that Beck teaches means for logging command for later execution at Col. 8, lines 34-37. As Claim 12 depends upon Claim 11, Applicants maintain that Claim 12 is likewise allowable for the reasons given above for Claims 10 and 11. Further, Applicants maintain that Beck does not teach logging commands for later execution. Rather, as is clearly stated at Beck, Col 8, lines 34-37, a stack is displayed which contains a list messages which have been sent, but for which the target method associated with the message has not yet fully executed. In other words, a list of messages in progress is displayed. This is not what is being claimed by Applicants, who are claiming 'logging said command for later execution'. This logging is a deferral method, not a status indicating method of Beck. Thus, Claim 12 has been improperly rejected and is allowable in view of Beck.

The Examiner rejected Claim 13 as being obvious in view of the Beck teachings at Fig. 6, item 60. Applicants traverse this rejection for the reasons given in regards to Claim 1, upon which this claim is dependant upon.

The Examiner rejected Claim 14 as being obvious in view of the Beck teachings at Fig. 6, item 27. Applicants traverse this rejection for the reasons given in regards to Claim 1, upon which this claim is dependant upon.

The Examiner rejected Claims 15 and 16 as being obvious in view of the Beck teachings at Figs. 3-12. Applicants traverse this rejection for the reasons given in regards to Claim 1, upon which these claims ultimately depend upon.

Claim 17 was rejected by the Examiner using the teachings of Beck, Figs. 3-12. Applicants claim 'means for accessing a screen presentation from a plurality of objects'. The graphical representations of Beck are mere output representations,

and in no way provide any sort of operator or user ability to access a screen presentation, as is being claimed. Applicants objects are active devices which provide this access capability, whereas Beck's graphical representations are passive and offer no functionality. Therefore, Claim 17 was improperly rejected, and should be allowed.

Claim 18 was rejected by the Examiner in view of Beck, and in particular Col. 4, lines 42-43. This passage discusses displaying indicators when an object either receives a message or begins invocation of an object's method. This has nothing to do with what is being claimed by Applicants in Claim 18. Specifically, the elements of 'altering an object database from within the interface during a session of execution' is nowhere taught or suggested by Beck. This is a unique capability of Applicants' claimed invention, where the underlying database can be modified in real time, without the need for system regeneration(see Specification, page 8, line 21 to page 9, line 6). Thus, Claim 18 was improperly rejected as there is no teaching or suggestion within Beck of this unique claimed feature. Further, Claim 18 depends upon Claim 1, which has been shown to be allowable in view of Beck, and is likewise allowable.

Claim 19 was rejected by the Examiner, where it was stated that Beck Col. 4, lines 39-40 taught altering object database by creating a new object. This is not what Beck teaches at Col. 4, lines 39-40. Rather, this passage discusses updating a visual display, and not an object database. There is no connection between status information being displayed, and the ability to alter an underlying object database. Further, Claim 19 depends upon Claim 1, which has been shown to be allowable in view of Beck. Therefore, Claim 19 was improperly rejected and should be allowed.

Next, the Examiner rejected Claim 20, in stating that Beck teaches the feature of entering hierarchy of objects, and specifically points to Beck, Col. 11, lines 8-12 and Col. 5, Table 1. The Examiner has misunderstood the teachings of Beck. The table of Col. 5 is a case in point. This illustrates the Beck teaching of a fixed hierarchy of classes relating to an object. It is fixed, relates to classes and not objects, and in no way teaches or suggests 'means for directly entering hierarchy of objects', as is claimed by Applicants. The discussion at Col. 11, lines 8-12 merely discusses the differences between using a step command vs. a send command. There is no discussion, teaching, or suggestion of directly entering a hierarchical relationship of interface objects. Further, Claim 20 ultimately depends upon Claims 3 and 1, both of which have been shown to be allowable. Claim 20 is likewise allowable on this ground, as it contains all the limitations of Claims 3 and 1. Therefore, Claim 20 was improperly rejected by the Examiner in view of Beck, and should be allowed.

Claim 21 was rejected by the Examiner as being obvious in view of Beck, and specifically at Col. 10, lines 1-6 of Beck. The Examiner states that Beck teaches means for displaying presentations by a plurality of graphical libraries. Applicants have analyzed the teachings pointed out by the Examiner in the Beck reference, and fail to see any teaching or suggestion for 'displaying said logical frame presentations by a plurality of graphical libraries', as is claimed by Applicants. This support for plural graphical libraries is another key feature of Applicants claimed invention, and allows for future applications to use graphical libraries which are supplied by the application, and bypass any existing graphical libraries predefined by the system. This additional degree of

flexibility in the underlying system design is in no way taught or suggested by Beck. There is no teaching of a graphical library, nor is there a teaching a supporting a plurality of graphical libraries. Further, Claim 21 is dependent upon Claim 1, which has been shown to be allowable in view of Beck. Claim 21 is allowable for this reason as well, as all the limitations of Claim 1 exist in Claim 21. Thus, this Claim 21 was improperly rejected by the Examiner, as is allowable in view of Beck.

Claims 22 and 23 were rejected by the Examiner as being obvious in view of Beck, in which Examiner states that the means for presenting items in at least one of a plurality of ways dependent upon a graphical and linguistic context is taught at Fig. 6, item 22 of Beck. Applicants wish to point out that what is being claimed is 'means, within said inter-face objects, for representing'. Beck's graphical representa-tions have no means to do anything. They are mere output representations, and contained no information within them-selves, for representing items in a logical frame in a plural-ity of ways depending upon a graphical or linguistic context, as is claimed by Applicants. Claim 22 and 23 are also depen-dent upon Claim 1, which has been shown to be allowable in view of Beck. For the above listed reasons, Claims 22 and 23 have been improperly rejected and should be allowed.

Moving to Claim 24, the Examiner rejected this Claim and states that Beck teaches means for accessing a screen library having means for indicating items outside a visual screen presentation at Beck Fig. 6, item 60, and Col. 12, lines 55-59. Beck does not teach the element of accessing a screen library, but rather shows accessing a menu selection box. Applicants claim the element of 'means for accessing a screen library', and this screen library has 'means for indicating'

items. Although the second element is arguably shown by Beck, the first item is not. Applicants screen library both filters data being sent to the screen and accepts user input (see Specification page 27, lines 6-15). This is distinct from a box being displayed on a display for indicating items, as is taught by Beck. Thus, all the claimed limitations are not taught or suggested by Beck. Further, Claim 24 is dependent upon Claim 1, which has been shown to be allowable in view of Beck. Therefore, all claimed limitations of Claim 24 would be allowable in view of Beck, and this claim was improperly rejected.

Claim 25 was rejected by the Examiner, in stating that means for providing a presentation dependent upon an access control policy is taught by Beck at Fig. 1, item 18 and Col. 3, lines 65-68. Figure 1 of Beck shows a selection of commands available to a user. No access control policy is taught or suggested. Applicants access control policy is described at Specification, page 46, line 19 through page 47, line 7, and provides a level of security not provided for by the Beck teachings. Beck merely displays a list of commands for a user to invoke, and has no means for providing any access control policies on commands available for selection. The discussion at Beck Col. 3, lines 65-68 merely discusses sending messages to initiate a program. Again, no type of access control policy is described or suggested. The Examiner is improperly reading a function into Beck, which does not exist, in rejecting this claim. Further, this claim includes all the limitations of Claim 1, which has been shown to be allowable in view of Beck. Therefore, this Claim 25 was improperly rejected and should be allowed.

Claims 26 and 27 were rejected by the Examiner for reasons substantially the same as Claim 1, and Applicants rely

on the arguments made with respect to Claim 1 to traverse this rejection.

In closing, it should be emphasized that the Beck graphical representations are mere passive output indicators and have no bearing or relationship to the interface objects being claimed by Applicants. These interface objects have information contained within the objects themselves, and this information and objects are used to drive (i.e. is an active input to) a target system resource. As the functions have no bearing or relationship to one another, it would further not be obvious to modify the teachings of Beck to achieve Applicants' claimed invention.

Applicants request the Examiner to withdraw the rejection of these Claims 1-27, as all basis for rejection have been overcome, and pass these claims to issue.

Respectfully Submitted,

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